Safety Data Sheet STANNIC CHLORIDE Pentahydrate

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SECTION 1: Identification

GHS Product identifier

Product name	STANNIC CHLORIDE Pentahydrate

Other means of identification

TIN(IV) CHLORIDE Pentahydrate LR
Tin (IV) chloride
Tin tetrachloride

Recommended use of the chemical and restrictions on use

Substitute for anhydrous stannic chloride where the presence of water is not objectionable and laboratory reagent.

Supplier's details

Name	ChemSupply Australia Pty Ltd
Address	38-50 Bedford Street 5013 Gillman South Australia Australia
Telephone	08 8440 2000
email	www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 1
- Skin corrosion/irritation, Cat. 1B

GHS label elements, including precautionary statements

Pictograms

Signal word	**Danger**

Hazard statement(s)

H314	Causes severe skin burns and eye damage

Precautionary statement(s)

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor/physcian
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 350.6

Components

Component	CAS no.	Concentration
Tin (IV) Chloride Pentahydrate	**10026-06-9**	**100 % (weight)**
CLASSIFICATIONS: Serious eye damage/eye irritation, Cat. 1; Skin corrosion/irritation, Cat. 1B. HAZARDS: H314 - Causes severe skin burns and eye damage; H318 - Causes serious eye damage.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Consult a physician.
In case of skin contact	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek urgent medical assistance.
In case of eye contact	If contact with the eye(s) occurs, wash with copious amounts of water for

	approximately 15 minutes holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. Seek immediate medical assistance.
If swallowed	Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek immediate medical advice.

Most important symptoms/effects, acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary
Treat symptomatically based on judgement of doctor and individual reactions of the patient.

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor.

SECTION 5: Fire-fighting measures

Suitable extinguishing media
Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Specific hazards arising from the chemical
Hazards from Combustion Products: Irritating or toxic fumes, gases and vapours, including hydrogen chloride gas (hydrochloric acid), tin/tin chlorides/tin oxides and chlorine.

Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases.

Special protective actions for fire-fighters
Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Evacuate the area of all non-essential personnel. Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.
Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up
Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.
Prevent contamination of soil and water.

SECTION 7: Handling and storage

Precautions for safe handling
Avoid ingestion or inhalation of dust. Avoid contact with skin, eyes, or clothing. Avoid prolonged or repeated exposure. Minimize dust generation and accumulation. Keep containers closed when not in use. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Wear appropriate protective equipment. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ensure a high level of personal hygiene is maintained when using this product. This material is readily hydrolyzed by water, becoming highly corrosive to metals. Keep container dry.

Conditions for safe storage, including any incompatibilities

Corrosives area. Store in suitable, labelled, corrosion-proof, tightly closed containers, in a separate safety storage cabinet or room, in a cool, dry, well ventilated area away from incompatible substances. Store away from sources of heat or ignition, combustibles and oxidizers. Protect against physical damage, moisture and direct sunlight. Product reacts with water. This material is readily hydrolyzed by water, becoming highly corrosive to metals. Take precautions to avoid contact with atmospheric moisture. Do not get water inside containers. Keep away from metals. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

Corrosiveness: Corrosive to metals and attacks some forms of plastics and rubbers.

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: 10026-06-9

Tin (IV) Chloride Pentahydrate

AU/SWA (Australia): 2 mg/m3 TWA inhalation

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Ensure hand protection complies with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Footwear: Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Body Protection: Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid

Appearance	White or slightly yellow, deliquescent, monoclinic crystals or fused small lumps.
Color	No data available.
Odor	Slight odour of hydrochloric acid.
Odor threshold	No data available.
Melting point/freezing point	56 °C (decomposes).
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	Not considered to be an explosion hazard. Sealed containers may rupture when heated. Violent reaction with potassium; sodium; turpentine; ethylene oxide; alkyl nitrates.
Auto-ignition temperature	No data available.
Decomposition temperature	56 °C (melting point).
Oxidizing properties	No data available.
pH	Acidic in solution.
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Very soluble in water. Solubility in Organic Solvents: Soluble in alcohol.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	10 mm Hg @ 10 °C; 30 mm Hg @ 20 °C.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 2.04.
Relative vapor density	9.0.
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes
No data available.

Further safety characteristics (supplemental)
No data available.

SECTION 10: Stability and reactivity

Reactivity
Stable under normal conditions of storage and handling.

Chemical stability
Stable under normal temperatures and pressures. May decompose on exposure to moist air or water.

Possibility of hazardous reactions
Reacts violently with potassium, sodium, ethylene oxide, turpentine or alkyl nitrates. Reacts vigorously with water and moisture to form hydrogen chloride (hydrochloric acid), tin oxide fume and heat.

Conditions to avoid
Heat, high temperatures, flames, ignition sources, exposure to moist air, moisture, or water and incompatible materials.

Incompatible materials
Strong acids. strong bases, alcohols, amines, potassium, sodium, alkyl nitrates, ethylene oxide, turpentine, water and moisture, metals and some forms of plastics and rubbers.

Hazardous decomposition products

Irritating or toxic fumes, gases and vapours, including hydrogen chloride gas (hydrochloric acid), tin/tin chlorides/tin oxides and chlorine.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Ingestion: Corrosive. Swallowing can cause severe digestive tract irritation, severe burns, or permanent tissue destruction of the mouth, throat, and digestive tract, leading to death. Ingestion produces vomiting due to the gastric irritation from the activity and astringency of tin compounds. May cause sore throat, abdominal pain, nausea, vomiting and diarrhoea. Inorganic tin salts are poorly absorbed into the body. May be absorbed into the body by ingestion affecting the central nervous system, liver, and kidney. May interfere with the body's ability to absorb iron from the diet, contributing to iron deficiency anaemia. Large doses may cause general weakness, with paralysis of some parts of the nervous system and stimulation of others, leading to ataxia, stiffness and irregularity of movement and occasionally convulsion.

Inhalation: May be harmful if inhaled. Inhalation of dusts may cause severe irritation of the upper respiratory tract, with pain, burns, and inflammation and possible harmful corrosive effects including lesions of the nasal septum, pneumonitis and emphysema. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. May be absorbed into the body by inhalation affecting the central nervous system, liver, kidney and lungs. May cause pneumoconiosis and pulmonary oedema, which can be fatal.

Skin corrosion/irritation
Corrosive. May cause severe skin irritation with possible burns, especially if skin is wet or moist. Symptoms may include redness, itching, severe pain, and severe burn with resultant tissue destruction. May be harmful if absorbed through the skin.

Serious eye damage/irritation
Corrosive. Contact with eyes may cause severe irritation, and possible severe eye burns and permanent eye damage. Symptoms may include blurred vision, redness, tearing, stinging and severe pain.

Respiratory or skin sensitization
No data available.

Germ cell mutagenicity
No data available.

Carcinogenicity
No data available.

Reproductive toxicity
No data available.

Summary of evaluation of the CMR properties
No data available.

Specific target organ toxicity (STOT) - single exposure
No data available.

Specific target organ toxicity (STOT) - repeated exposure
No data available.

Aspiration hazard
No data available.

Additional information

Chronic Effects: Prolonged inhalation (dust, mist or fume) may result in a benign pneumoconiosis, producing distinctive changes in the lungs with no apparent disability or complications. Prolonged or repeated skin contact may cause dermatitis. Repeated exposure of the eyes to a low level of dust can produce eye irritation.

Tin (IV) Chloride Pentahydrate: Inhalation, rat: LC50 = 2300 mg/m3/10M;

SECTION 12: Ecological information

Toxicity
Acute Toxicity - Fish: Brachydanio rerio LC50: > 1000 mg/l /96 hr (anhydrous substance).

Acute Toxicity - Daphnia: EC50 - Daphnia magna - 21.5 mg/l - 48hr (Anhydrous)

[8Z] Acute Toxicity - Algae: Anabaena flos-aquae EC50: > 5 mg/l /4 hr (anhydrous substance);
Scenedesmus quadricauda EC50: > 50 mg/l /4 hr (anhydrous substance).

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations
Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)
UN Number: 2440
Class: 8
Packing Group: III
Proper Shipping Name: STANNIC CHLORIDE PENTAHYDRATE

Environmental Hazards: Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Hazchem emergency action code (EAC)
2X

IMDG
UN Number: 2440
Class: 8
Packing Group: III
EMS Number:
Proper Shipping Name: STANNIC CHLORIDE PENTAHYDRATE

Environmental Hazards: Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

IATA
UN Number: 2440
Class: 8

Packing Group: III
Proper Shipping Name: STANNIC CHLORIDE PENTAHYDRATE

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP
Poison Schedule: NS

New Jersey Right To Know Components
Common name: STANNIC CHLORIDE, HYDRATED
CAS number: 10026-06-9

SECTION 16: Other information

Further information/disclaimer
ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'
Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.
Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.
Safe Work Australia, Workplace Exposure Standards for Airbourne Contaminants, December 2019
Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au
IATA, Dangerous Goods Regulations (DGR)
IMO, International Maritime Dangerous Goods Code (IMDG)